

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in this application.

LISTING OF CLAIMS:

1. (Currently Amended) A device for sterilization in production of packages having an open end and a closed end prior to filling the packages, which is adapted for sterilization with a gaseous sterilizing agent kept in the gaseous phase throughout the sterilization process, said device comprising a heating zone, a sterilization zone, a venting zone, means for maintaining a higher positive pressure in the sterilization zone than in the heating zone and venting zone, and means for controlling a flow of gaseous sterilizing agent in the sterilization zone such that the gaseous sterilizing agent is both introduced into and evacuated from the sterilization zone at such rate that the higher positive pressure is maintained in the sterilization zone;

wherein the heating zone comprises means for heating the packages to a temperature above a dew point of the sterilizing agent used in the sterilization zone;
[[and]]

wherein the means for heating comprises means for introducing and withdrawing hot air in the heating zone;

wherein, in the sterilization zone, the gaseous sterilizing agent flows essentially in a direction from the open end of the packages towards the closed end of the packages; and

wherein the means for controlling the flow of gaseous sterilizing agent are arranged to introduce the gaseous sterilizing agent in a top portion of the sterilization zone and to evacuate the gaseous sterilizing agent in a bottom portion of the sterilization zone, maintaining a flow of gaseous sterilizing agent essentially from top to bottom.

2. (Previously Presented) A device as claimed in claim 1, wherein said zones are separated from each other by means of partitionings having openings for the passage of packages.

3. (Previously Presented) A device as claimed in claim 1, which is adapted for sterilization with a gaseous sterilizing agent in the form of gaseous hydrogen peroxide.

4-5. (Canceled)

6. (Currently Amended) A device as claimed in claim ~~[[4]]~~ 1, wherein the venting zone comprises means for venting away the sterilizing agent used in the sterilization zone from the packages after sterilization.

7-8. (Canceled)

9. (Currently Amended) A device as claimed in claim ~~[[4]]~~ 1, further comprising means for controlling a venting air flow in the venting zone, such that the venting air flows essentially in a direction from the open end of the packages towards the closed end of the packages.

10. (Previously Presented) A device as claimed in claim 9, wherein the means for controlling the flow of venting air are arranged to introduce the venting air in a top portion of the venting zone and to evacuate the venting air in a bottom portion of the venting zone, maintaining a flow of venting air essentially from top to bottom.

11. (Currently Amended) A device as claimed in claim ~~[[4]]~~ 1, further comprising an ambient temperature sensor for sensing the ambient temperature outside the device.

12. (Currently Amended) A device as claimed in claim ~~[[4]]~~ 1, further comprising a package heating temperature sensor for sensing the temperature of the packages entering the heating zone.

13. (Currently Amended) A device as claimed in claim ~~[[4]]~~ 1, further comprising an entry temperature sensor for sensing the temperature of the packages before entry into the sterilization zone.

14. (Currently Amended) A device as claimed in claim ~~[[4]]~~ 1, further comprising a feedback circuit for controlling the heating in the heating zone based on the temperature of the packages.

15. (Previously Presented) A device as claimed in claim 1, further comprising a condensation detector for detecting condensation in the sterilization zone.

16. (Previously Presented) A device as claimed in claim 1, which is adapted to sterilize itself internally.

17. (Previously Presented) A device as claimed in claim 16, further comprising means for heating the interior of the device.

18. (Previously Presented) A device as claimed in claim 1, comprising a unit for production of the gaseous sterilizing agent.

19. (Previously Presented) A device as claimed in claim 1, further comprising a filling zone for filling packages, and means for maintaining a higher pressure in the filling zone than in the venting zone.

Claims 20-35 (Canceled).

36. (Currently Amended) A device as claimed in claim 1, wherein the ~~hot~~
~~air introduced and withdrawn in the heating zone~~ means for heating comprises
means for introducing and withdrawing hot sterile air in the heating zone.